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EXAMINER

LAZARO, DAVID R

ART UNIT	PAPER NUMBER
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2155

DATE MAILED: 02/09/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/712,780

Applicant(s)

SHETH ET AL.

Examiner

David Lazaro

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 13 May 2002.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-36 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-36 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 13 November 2000 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. §§ 119 and 120

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 13) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application) since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.
- a) ☐ The translation of the foreign language provisional application has been received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121 since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 3,5,6.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

Claims 1-36 are pending in this office action.

Papers Received

1. Oath/Declaration and associated Fees were received on 05/10/01.

Information Disclosure Statement

2. The information disclosure statements (IDS) submitted on 12/14/00, 05/22/01 and 05/26/01 were considered by the examiner.

Drawings

3. The drawings are objected to as failing to comply with 37 CFR 1.84(p)(5) because they do not include the following reference sign(s) mentioned in the description: On page 17 line 18, reference number 395 is not in Fig. 4. A proposed drawing correction or corrected drawings are required in reply to the Office action to avoid abandonment of the application. The objection to the drawings will not be held in abeyance.

Specification

4. Please provide the Serial/Patent Number for any referenced Applications or Patents that were left blank.

5. The disclosure is objected to because of the following informalities: The disclosure makes numerous references to both a "tunnel selection configuration override attribute" and a "domain configuration override attribute". Although a general association can be made, it is not made explicitly clear the difference between the two in form or use or if they both exist in a profile. This is more of an issue when they are used in describing a single embodiment such as on page 17 lines 10-23 and on page 21 lines 6-23.

Appropriate correction is required.

Claim Objections

6. Claim 29 is objected to because of the following informalities: RADIUS is more commonly referenced as "Remote Authentication..." instead of "Remote Authorization...". This also applies to the Applicant's specification on page 16 lines 10-11. Appropriate correction is required.

7. Claims 31-36 are objected to because of the following informalities: The examiner believes Claims 31-36 include typographical errors in respect to their Claim dependencies. Therefore, Claims 31-36 will be interpreted as being ultimately dependent on independent Claim 30 instead of independent Claim 22. Furthermore, Claims 31-36 will be interpreted to have proper dependencies between themselves as reflected in previous proper dependent claims. Appropriate correction is required.

Claim Rejections - 35 USC § 112

8. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

9. Claims 3, 10 and 17 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the enablement requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention. Each of these Claims describe disconnecting the subscriber "from all then existing connections" based on the existence of the domain configuration attribute and the matching of the domain identifier to the service associated with the domain configuration override attribute. Although the specification does support checking for the domain configuration override attribute and the matching function, there is no support for disconnecting the subscriber "from all then existing connections" based on the result of these or any conditions.

10. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

11. Claims 3, 4, 10, 11, 17, 18, 25 and 26 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

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12. Claims 3, 10 and 17 each recite the limitation "all then existing network connections". There is insufficient antecedent basis for this limitation in the claim.
13. Claims 4, 11 and 18 each recite the limitation "said service request". There is insufficient antecedent basis for this limitation in the claim.
14. Claim 25 recites the limitation "said PPP session" in line 2. There is insufficient antecedent basis for this limitation in the claim.
15. Claim 26 recites the limitation "said tunneling session" in line 1. There is insufficient antecedent basis for this limitation in the claim.
16. Note: The examiner assumes the 112 rejections for Claims 25 and 26 are the result of typographical error and will interpret their dependencies as Claim 24 and 25 respectively in any further rejections.

Claim Rejections - 35 USC § 103

17. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

18. Claims 1-4, 8-11 and 15-18 rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent 6,044,402 by Jacobson et al. (Jacobson) in view of U.S. Patent 6,466,976 by Alles et al. (Alles).
19. With respect to Claim 1, Jacobson teaches a method for controlling subscriber access (Col. 2 lines 7-17) in a network capable of establishing connections with a

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plurality of services (Col. 3 lines 57-63), comprising: receiving a communication from a subscriber using a first communication network coupled to a second communication network (Col. 3 lines 8-25 and lines 44-56), said communication optionally including a domain identifier associated with a service on said second communication network (Col. 11 lines 12-23); and authorizing said subscriber to access a service on said second communication network (Col. 14 lines 35-40), said authorizing based upon a domain configuration override attribute associated with a source of a communication from a subscriber (Col. 14 lines 40-45 and Col. 18 lines 41-53). Jacobson does not explicitly disclose the use of virtual circuits to receive communications and to use in accessing a service. Alles teaches that communication networks may be virtual networks (Col. 1 lines 53-60) and that services on these networks may need to be authorized (Col. 1 lines 60-63). Alles further teaches one can uniquely identify the virtual circuit used to receive a communication from a subscriber and base authorization on associations of the identified circuit (Col. 9 lines 6-15). It would have been obvious to one of ordinary skill in the art at the time the invention was made to take the method disclosed by Jacobson and modify it as indicated by Alles such that the method further comprises authorizing said subscriber to access a service on said second communication network using one of a plurality of virtual circuits, said authorizing based upon a domain configuration override attribute associated with the virtual circuit used to receive said communication from said subscriber. One would be motivated to have this since there is need for a method that enables the provision of different authorization policies to different subscribers or channels (Col. 2 lines 26-30 and Col. 10 lines 36-40).

20. With respect to Claim 2, Jacobson in view of Alles teaches all the limitations of Claim 1 and further teaches said authorizing further comprises: receiving from a memory a virtual circuit profile associated with said virtual circuit (Col. 9 lines 12-15 of Alles); assessing said virtual circuit profile to determine if a domain configuration override attribute exists within said virtual circuit profile (Col. 14 lines 40-45 and Col. 18 lines 42-46 of Jacobson); and allowing said subscriber to connect exclusively to a service associated with said domain configuration override attribute when said domain configuration override attribute exists within said virtual circuit profile (Col. 15 line 66 to Col. 16 line 8 of Jacobson).

21. With respect to Claim 3, Jacobson in view of Alles teaches all the limitations of Claim 2 and further teaches causing the subscriber to disconnect from all then existing network connections when said domain configuration override attribute exists within said virtual circuit profile and when said domain identifier in said communication does not match said service associated with said domain configuration override attribute (Col. 15 line 66 to Col. 16 line 8 of Jacobson).

22. With respect to Claim 4, Jacobson in view of Alles teaches all the limitations of Claim 2 and further teaches said service request comprises a Point-to-Point Protocol (PPP) session service request (Col. 6 lines 53-64 of Alles).

23. With respect to Claim 8, Jacobson teaches a program storage device readable by a machine, embodying a program of instructions executable by the machine to perform a method to control subscriber access (Col. 2 lines 7-17) in a network capable of establishing connections with a plurality of services (Col. 3 lines 57-63), the method

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comprising: receiving a communication from a subscriber using a first communication network coupled to a second communication network (Col. 3 lines 8-25 and lines 44-56), said communication optionally including a domain identifier associated with a service on said second communication network (Col. 11 lines 12-23); and authorizing said subscriber to access a service on said second communication network (Col. 14 lines 35-40), said authorizing based upon a domain configuration override attribute associated with a source of a communication from a subscriber (Col. 14 lines 40-45 and Col. 18 lines 41-53). Jacobson does not explicitly disclose the use of virtual circuits to receive communications and to use in accessing a service. Alles teaches that communication networks may be virtual networks (Col. 1 lines 53-60) and that services on these networks may need to be authorized (Col. 1 lines 60-63). Alles further teaches one can uniquely identify the virtual circuit used to receive a communication from a subscriber and base authorization on associations of the identified circuit (Col. 9 lines 6-15). It would have been obvious to one of ordinary skill in the art at the time the invention was made to take the method disclosed by Jacobson and modify it as indicated by Alles such that the method further comprises authorizing said subscriber to access a service on said second communication network using one of a plurality of virtual circuits, said authorizing based upon a domain configuration override attribute associated with the virtual circuit used to receive said communication from said subscriber. One would be motivated to have this since there is need for a method that enables the provision of different authorization policies to different subscribers or channels (Col. 2 lines 26-30 and Col. 10 lines 36-40).

24. With respect to Claim 9, Jacobson in view of Alles teaches all the limitations of Claim 8 and further teaches said authorizing further comprises: receiving from a memory a virtual circuit profile associated with said virtual circuit (Col. 9 lines 12-15 of Alles); assessing said virtual circuit profile to determine if a domain configuration override attribute exists within said virtual circuit profile (Col. 14 lines 40-45 and Col. 18 lines 42-46 of Jacobson); and allowing said subscriber to connect exclusively to a service associated with said domain configuration override attribute when said domain configuration override attribute exists within said virtual circuit profile (Col. 15 line 66 to Col. 16 line 8 of Jacobson).

25. With respect to Claim 10, Jacobson in view of Alles teaches all the limitations of Claim 9 and further teaches causing the subscriber to disconnect from all then existing network connections when said domain configuration override attribute exists within said virtual circuit profile and when said domain identifier in said communication does not match said service associated with said domain configuration override attribute (Col. 15 line 66 to Col. 16 line 8 of Jacobson).

26. With respect to Claim 11, Jacobson in view of Alles teaches all the limitations of Claim 9 and further teaches said service request comprises a Point-to-Point Protocol (PPP) session service request (Col. 6 lines 53-64 of Alles).

27. With respect to Claim 15, Jacobson teaches a an apparatus for controlling subscriber access (Col. 2 lines 7-17) in a network capable of establishing connections with a plurality of services (Col. 3 lines 57-63), the apparatus comprising: means for receiving a communication from a subscriber using a first communication network

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coupled to a second communication network (Col. 3 lines 8-25 and lines 44-56), said communication optionally including a domain identifier associated with a service on said second communication network (Col. 11 lines 12-23); and means for authorizing said subscriber to access a service on said second communication network (Col. 14 lines 35-40), said authorizing based upon a domain configuration override attribute associated with a source of a communication from a subscriber (Col. 14 lines 40-45 and Col. 18 lines 41-53). Jacobson does not explicitly disclose the use of virtual circuits to receive communications and to use in accessing a service. Alles teaches that communication networks may be virtual networks (Col. 1 lines 53-60) and that services on these networks may need to be authorized (Col. 1 lines 60-63). Alles further teaches one can uniquely identify the virtual circuit used to receive a communication from a subscriber and base authorization on associations of the identified circuit (Col. 9 lines 6-15). It would have been obvious to one of ordinary skill in the art at the time the invention was made to take the apparatus disclosed by Jacobson and modify it as indicated by Alles such that the apparatus further comprises means for authorizing said subscriber to access a service on said second communication network using one of a plurality of virtual circuits, said authorizing based upon a domain configuration override attribute associated with the virtual circuit used to receive said communication from said subscriber. One would be motivated to have this since there is need for a method that enables the provision of different authorization policies to different subscribers or channels (Col. 2 lines 26-30 and Col. 10 lines 36-40).

28. With respect to Claim 16, Jacobson in view of Alles teaches all the limitations of Claim 15 and further teaches said means for authorizing further comprises: means for receiving from a memory a virtual circuit profile associated with said virtual circuit (Col. 9 lines 12-15 of Alles); means for assessing said virtual circuit profile to determine if a domain configuration override attribute exists within said virtual circuit profile (Col. 14 lines 40-45 and Col. 18 lines 42-46 of Jacobson); and means for allowing said subscriber to connect exclusively to a service associated with said domain configuration override attribute when said domain configuration override attribute exists within said virtual circuit profile (Col. 15 line 66 to Col. 16 line 8 of Jacobson).

29. With respect to Claim 17, Jacobson in view of Alles teaches all the limitations of Claim 16 and further teaches means for causing the subscriber to disconnect from all then existing network connections when said domain configuration override attribute exists within said virtual circuit profile and when said domain identifier in said communication does not match said service associated with said domain configuration override attribute (Col. 15 line 66 to Col. 16 line 8 of Jacobson).

30. With respect to Claim 18, Jacobson in view of Alles teaches all the limitations of Claim 16 and further teaches said service request comprises a Point-to-Point Protocol (PPP) session service request (Col. 6 lines 53-64 of Alles).

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31. Claims 5-7, 12-14 and 19-21 are rejected under 35 U.S.C. 103(a) as being unpatentable over Jacobson in view of Alles as applied to claims 1-4, 8-11 and 15-18 above, and further in view of U.S. Patent 6,094,437 by Loehndorf, Jr. et al. (Loehndorf).

32. With respect to Claim 5, Jacobson in view of Alles teaches all the limitations of Claim 4 but does not explicitly disclose the PPP session comprising a tunnel session and assigning a tunnel ID. Loehndorf teaches a PPP session may comprise a tunnel session (Col. 2 line 66 – Col. 3 line 7), and that a tunnel ID can be assigned (Col. 11 lines 36-40 and lines 60-61). It would have been obvious to one of ordinary skill in the art at the time the invention was made to take the method disclosed by Jacobson in view of Alles and modify it as indicated by Loehndorf such that said PPP session comprises a tunneling session; and said allowing further comprises assigning a tunnel ID. One would be motivated to have this as tunneling is commonly used to securely send data between networks and to provide needed or improved functionality (Col. 1 lines 33-46).

33. With respect to Claim 6, Jacobson in view of Alles and in further view of Loehndorf teaches all the limitations of Claim 5 and further teaches said tunneling session comprises an L2TP session (Col. 2 line 66 – Col. 3 line 7 of Loehndorf).

34. With respect to Claim 7, Jacobson in view of Alles and in further view of Loehndorf teaches all the limitations of Claim 6 and further teaches said receiving a virtual circuit profile further comprises performing a table lookup based upon a Virtual Path Identifier (VPI) Virtual Channel Identifier (VCI) associated with said virtual circuit (Col. 9 lines 6-15 of Alles).

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35. With respect to Claim 12, Jacobson in view of Alles teaches all the limitations of Claim 11 but does not explicitly disclose the PPP session comprising a tunnel session and assigning a tunnel ID. Loehndorf teaches a PPP session may comprise a tunnel session (Col. 2 line 66 – Col. 3 line 7), and that a tunnel ID can be assigned (Col. 11 lines 36-40 and lines 60-61). It would have been obvious to one of ordinary skill in the art at the time the invention was made to take the program storage device disclosed by Jacobson in view of Alles and modify it as indicated by Loehndorf such that said PPP session comprises a tunneling session; and said allowing further comprises assigning a tunnel ID. One would be motivated to have this as tunneling is commonly used to securely send data between networks and to provide needed or improved functionality (Col. 1 lines 33-46).

36. With respect to Claim 13, Jacobson in view of Alles and in further view of Loehndorf teaches all the limitations of Claim 12 and further teaches said tunneling session comprises an L2TP session (Col. 2 line 66 – Col. 3 line 7 of Loehndorf).

37. With respect to Claim 14, Jacobson in view of Alles and in further view of Loehndorf teaches all the limitations of Claim 13 and further teaches said receiving a virtual circuit profile further comprises performing a table lookup based upon a Virtual Path Identifier (VPI) Virtual Channel Identifier (VCI) associated with said virtual circuit (Col. 9 lines 6-15 of Alles).

38. With respect to Claim 19, Jacobson in view of Alles teaches all the limitations of Claim 18 but does not explicitly disclose the PPP session comprising a tunnel session and assigning a tunnel ID. Loehndorf teaches a PPP session may comprise a tunnel

session (Col. 2 line 66 – Col. 3 line 7), and that a tunnel ID can be assigned (Col. 11 lines 36-40 and lines 60-61). It would have been obvious to one of ordinary skill in the art at the time the invention was made to take the apparatus disclosed by Jacobson in view of Alles and modify it as indicated by Loehndorf such that said PPP session comprises a tunneling session; and said means for allowing further comprises assigning a tunnel ID. One would be motivated to have this as tunneling is commonly used to securely send data between networks and to provide needed or improved functionality (Col. 1 lines 33-46).

39. With respect to Claim 20, Jacobson in view of Alles and in further view of Loehndorf teaches all the limitations of Claim 19 and further teaches said tunneling session comprises an L2TP session (Col. 2 line 66 – Col. 3 line 7 of Loehndorf).

40. With respect to Claim 21, Jacobson in view of Alles and in further view of Loehndorf teaches all the limitations of Claim 20 and further teaches said receiving a virtual circuit profile further comprises performing a table lookup based upon a Virtual Path Identifier (VPI) Virtual Channel Identifier (VCI) associated with said virtual circuit (Col. 9 lines 6-15 of Alles).

41. Claims 22-24 and 30-32 rejected under 35 U.S.C. 103(a) as being unpatentable over Alles in view of Jacobson.

42. With respect to Claim 22, Alles teaches an access server capable of forcing subscribers of a communications system to gain access exclusively to a domain

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network associated with a virtual circuit (Col. 1 lines 53-63), said access server comprising: an authorizer capable of granting service authorization to said subscribers based upon a virtual circuit used to make a service request (Col. 9 lines 6-15 and Col. 1 lines 53-63); a virtual circuit profile request generator capable of generating virtual circuit profile requests (Col. 9 lines 6-15); an assessor capable of assessing said requested virtual circuit profile (Col. 9 lines 6-15 and Col. 10 lines 36-40); and a calculator capable of determining whether the service associated with said virtual circuit matches the service associated with service policies (Col. 9 lines 6-15 and Col. 10 lines 57-65). Alles further teaches a subscriber source is uniquely identified by a corresponding virtual circuit (Col. 9 lines 6-15 and Col. 10 lines 57-64). Alles does not explicitly disclose the use of a domain configuration override attribute in association with a virtual circuit and the use of a domain configuration override attribute in the service policies. Jacobson teaches the use of a domain configuration override attribute in association with a subscriber source (Col. 14 lines 40-45 and Col. 18 lines 41-53) and the use of a domain configuration override attribute in a service policy for use in matching a service request to an associated service in the service policy (Col. 15 line 66 – Col. 16 line 8). It would have been obvious to one of ordinary skill in the art at the time the invention was made to take the access server disclosed by Alles and modify it as indicated by Jacobson such that the access server further comprises an assessor capable of assessing said requested virtual circuit profile for a domain configuration override attribute and a calculator capable of determining whether the service associated with said virtual circuit matches the service associated with said domain

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configuration override attribute. One would be motivated to have this since there is need for a flexible system that enables the provision of different authorization policies to different subscribers or channels (Col. 2 lines 26-30 and Col. 10 lines 36-40 of Alles).

43. With respect to Claim 23, Alles in view of Jacobson teaches all the limitations of Claim 22 and further teaches a receiving interface capable of accepting said service requests (Col. 6 line 52 – Col. 7 line 6 of Alles); a forwarding interface capable of sending said virtual circuit profile requests to a memory bank (Col. 9 lines 6-15 of Alles); and a second receiving interface capable of accepting requested virtual circuit profiles (Col. 9 lines 6-15 of Alles).

44. With respect to Claim 24, Alles in view of Jacobson teaches all the limitations of Claim 22 and further teaches said service request comprises a Point-to-Point Protocol (PPP) session service request (Col. 6 lines 52-57).

45. With respect to Claim 30, Alles teaches an access server capable of forcing subscribers of a communications system to gain access exclusively to a domain network associated with a virtual circuit (Col. 1 lines 53-63), said access server comprising: a memory device capable of storing a plurality of virtual circuit profiles, said virtual circuit profile having a service policy associated with subscriber authorized services (Col. 9 lines 6-15 and Col. 7 lines 51-6), an authorizer capable of granting service authorization to said subscribers based upon a virtual circuit used to make a service request (Col. 9 lines 6-15 and Col. 1 lines 53-63); a virtual circuit profile request generator capable of generating virtual circuit profile requests (Col. 9 lines 6-15); an assessor capable of assessing said requested virtual circuit profile (Col. 9 lines 6-15

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and Col. 10 lines 36-40); and a calculator capable of determining whether the service associated with said virtual circuit matches the service associated with service policies (Col. 9 lines 6-15 and Col. 10 lines 57-65). Alles further teaches a subscriber source is uniquely identified by a corresponding virtual circuit (Col. 9 lines 6-15 and Col. 10 lines 57-64). Alles does not explicitly disclose the use of a domain configuration override attribute in association with a virtual circuit and the use of a domain configuration override attribute in the service policies in relation to subscriber authorized services. Jacobson teaches the use of a domain configuration override attribute in association with a subscriber source and authorized services (Col. 14 lines 40-45 and Col. 18 lines 41-53) and the use of a domain configuration override attribute in a service policy for use in matching a service request to an associated service in the service policy (Col. 15 line 66 – Col. 16 line 8). It would have been obvious to one of ordinary skill in the art at the time the invention was made to take the access server disclosed by Alles and modify it as indicated by Jacobson such that the access server further comprises a memory device capable of storing a plurality of virtual circuit profiles, said virtual circuit profiles capable of having a domain configuration override attribute associated with subscriber authorized services, an assessor capable of assessing said requested virtual circuit profile for a domain configuration override attribute and a calculator capable of determining whether the service associated with said virtual circuit matches the service associated with said domain configuration override attribute. One would be motivated to have this since there is need for a flexible system that enables the provision of

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different authorization policies to different subscribers or channels (Col. 2 lines 26-30 and Col. 10 lines 36-40 of Alles).

46. With respect to Claim 31, Alles in view of Jacobson teaches all the limitations of Claim 30 and further teaches a receiving interface capable of accepting said service requests (Col. 6 line 52 – Col. 7 line 6 of Alles); a forwarding interface capable of sending said virtual circuit profile requests to a memory bank (Col. 9 lines 6-15 of Alles); and a second receiving interface capable of accepting requested virtual circuit profiles (Col. 9 lines 6-15 of Alles).

47. With respect to Claim 32, Alles in view of Jacobson teaches all the limitations of Claim 30 and further teaches said service request comprises a Point-to-Point Protocol (PPP) session service request (Col. 6 lines 52-57).

48. Claims 25-28 and 33-36 rejected under 35 U.S.C. 103(a) as being unpatentable over Alles in view of Jacobson as applied to Claims 22-24 and 30-32 above, and further in view of Loehndorf.

49. Note: As stated earlier, Claims 25-28 and 33-36 are rejected based on what the examiner believes the Claim dependencies were intended to be.

50. With respect to Claim 25, Alles in view of Jacobson teaches all the limitations of Claim 24 but does not explicitly disclose the PPP session comprising a tunnel session and assigning a tunnel ID. Loehndorf teaches a PPP session may comprise a tunnel session (Col. 2 line 66 – Col. 3 line 7), and that a tunnel ID can be assigned (Col. 11

lines 36-40 and lines 60-61). It would have been obvious to one of ordinary skill in the art at the time the invention was made to take the access server disclosed by Alles in view of Jacobson and modify it as indicated by Loehndorf such that said PPP session comprises a tunneling session; and said calculator is capable of assigning a tunnel ID. One would be motivated to have this as tunneling is commonly used to securely send data between networks and to provide needed or improved functionality (Col. 1 lines 33-46).

51. With respect to Claim 26, Alles in view of Jacobson and in further view of Loehndorf teaches all the limitations of Claim 25 and further teaches said tunneling session comprises an L2TP session (Col. 2 line 66 – Col. 3 line 7 of Loehndorf).

52. With respect to Claim 27, Alles in view of Jacobson and in further view of Loehndorf teaches all the limitations of Claim 20 and further teaches said assessor is capable of performing a table lookup based upon a Virtual Path Identifier (VPI) Virtual Channel Identifier (VCI) associated with said virtual circuit (Col. 9 lines 6-15 of Alles).

53. With respect to Claim 28, Alles in view of Jacobson and in further view of Loehndorf teaches all the limitations of Claim 27 and further teaches said receiving interface comprises at least one access multiplexer, each access multiplexer having a plurality of inputs for receiving a service request (Col. 6 lines 52-64 of Alles), each of said inputs being associated with a particular subscriber virtual circuit (Col. 9 lines 6-15).

54. With respect to Claim 33, Alles in view of Jacobson teaches all the limitations of Claim 32 but does not explicitly disclose the PPP session comprising a tunnel session

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and assigning a tunnel ID. Loehndorf teaches a PPP session may comprise a tunnel session (Col. 2 line 66 – Col. 3 line 7), and that a tunnel ID can be assigned (Col. 11 lines 36-40 and lines 60-61). It would have been obvious to one of ordinary skill in the art at the time the invention was made to take the access server disclosed by Alles in view of Jacobson and modify it as indicated by Loehndorf such that said PPP session comprises a tunneling session; and said calculator is capable of assigning a tunnel ID. One would be motivated to have this as tunneling is commonly used to securely send data between networks and to provide needed or improved functionality (Col. 1 lines 33-46).

55. With respect to Claim 34, Alles in view of Jacobson and in further view of Loehndorf teaches all the limitations of Claim 33 and further teaches said tunneling session comprises an L2TP session (Col. 2 line 66 – Col. 3 line 7 of Loehndorf).

56. With respect to Claim 35, Alles in view of Jacobson and in further view of Loehndorf teaches all the limitations of Claim 34 and further teaches said assessor is capable of performing a table lookup based upon a Virtual Path Identifier (VPI) Virtual Channel Identifier (VCI) associated with said virtual circuit (Col. 9 lines 6-15 of Alles).

57. With respect to Claim 36, Alles in view of Jacobson and in further view of Loehndorf teaches all the limitations of Claim 35 and further teaches said receiving interface comprises at least one access multiplexer, each access multiplexer having a plurality of inputs for receiving a service request (Col. 6 lines 52-64 of Alles), each of said inputs being associated with a particular subscriber virtual circuit (Col. 9 lines 6-15).

58. Claim 29 rejected under 35 U.S.C. 103(a) as being unpatentable over Alles in view of Jacobson as applied to Claim 23 above, and further in view of Applicant's admitted prior art. Alles in view of Jacobson teaches all the limitations of Claim 23 but does not explicitly disclose the use of RADIUS protocol. However, Applicant admits that the RADIUS protocol is well known in the art (Page 16 lines 8-12). It would have been obvious to one of ordinary skill in the art at the time the invention was made to take the access server disclosed by Alles in view of Jacobson and modify it as indicated by Applicant's admitted prior art such that said memory bank and said access server communicate using the Remote Authorization Dial-In User Service (RADIUS) protocol. One would be motivated to do this since it is well known in the art as admitted by the Applicant.

Conclusion

59. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

60. U.S. Patent 5,949,755 by Uphadya et al. "ATM Emulated Path Protection" September 7, 1999

61. U.S. Patent 6,154,775 by Coss et al. "Methods and apparatus for a computer network firewall with dynamic rule processing with the ability to dynamically alter the operations of rules" November 28, 2000

62. U.S. Patent 6,236,655 by Caldara et al. "Port and link identification" May 22, 2001

63. U.S. Patent 6,412,003 by Melen et al. "System and method for accessing services" June 25, 2002
64. U.S. Patent 6,438,612 by Ylonen et al. "Method and arrangement for secure tunneling of data between virtual routers" August 20, 2002
65. U.S. Patent 6,609,153 by Salkewicz "Domain isolation through virtual network machines" August 19, 2003
66. U.S. Patent 6,651,096 by Gai et al. "Method and apparatus for organizing, storing, and evaluating access control lists" November 18, 2003
67. U.S. Patent 6,654,792 by Verma et al. "Method and architecture for logical aggregation of multiple servers" November 25, 2003
68. Xu, Jun and Singhal, Mukesh. "Design and evaluation of a high-performance ATM firewall switch and its applications" June, 1999, IEEE Journal on selected areas in communications, Vol. 17, no. 6, pp. 1190-1200

Any inquiry concerning this communication or earlier communications from the examiner should be directed to David Lazaro whose telephone number is 703-305-4868. The examiner can normally be reached on 8:30-5:00 M-F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Hosain Alam can be reached on 703-308-6662. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Art Unit: 2155

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David Lazaro
February 3, 2004



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